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//assignment #22
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#include"'stdafx.h"
//Header file section
#include
using namespace std;
//main method
int main()
{
//Declare variable
int n;
//Read input value from the user.
//Prompt and read input from the user
cout << "Enter positive integer between 1 and 1000: ";
cin >> n;
//check input value
if (n >= 1 && n <= 1000)
{
//check for n value
if (((n % 2) && (n % 3) && (n % 5) && (n % 7) && (n % 11) &&(n % 13) && (n % 17) && (n % 19)
&& (n % 23) &&(n % 29) && (n % 31))||(n == 2 ll n == 3 ll n == 5 ll n == 7 || n == 11 lln == 13 ll n
== 17 ll n == 19 ll n == 23 ll n == 29 ll n == 31))
{
//display result
cout << n << "is a prime" << endl;
}
else
{
l/display n that is not prime
cout << n <<" is not a prime. " << endl;
//Prompt output message
cout << "The list of divisors are ";
//check for first 11 prime numbers and
lldisplay the list of divisors if (n% 2 == 0) cout << "2". if (n % 3 == 0) cout «< "3"; if (n % 5 == 0) cout << "5"; if (n % 7
== 0) cout << "7"; if (n % 11 == 0)cout << "11 ";
if (n % 13 == 0)cout << "13"; if (n % 17 == 0) cout << "17"; if (n % 19 == 0)cout << "19"; if (n % 23 == 0)cout << "23";
if (n % 29 == 0) cout << "29"; if (n % 31 == 0)cout << "31".
}
}
cout << endl << endl:
//Pause the system for a while
system("pause");
return 0;
}
```